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Tisdall et al.

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(54) **METHOD FOR INSTALLING TILES IN A WALL SYSTEM**

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E04F 13/08	(2006.01)
E04B 2/72	(2006.01)
E04F 13/14	(2006.01)

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(58) **Field of Classification Search**
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USPC 52/204.71, 716.1, 717.03, 98–100, 244
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,140,196	A *	12/1938	Batcheller	E04F 13/16 264/132
2,637,995	A *	5/1953	Mann	E04F 13/0885 206/460
2,979,788	A *	4/1961	Richardson	E06B 3/5409 52/204.597
3,309,832	A	3/1967	Filsinger	
3,953,268	A	4/1976	Dillon	

(Continued)

FOREIGN PATENT DOCUMENTS

EP	1206610		3/2005
JP	09004194	A *	1/1997
WO	2017196305		11/2017

OTHER PUBLICATIONS

International Search Report and Written Opinion for application No. PCT/US2016/031657 dated Feb. 15, 2017.

(Continued)

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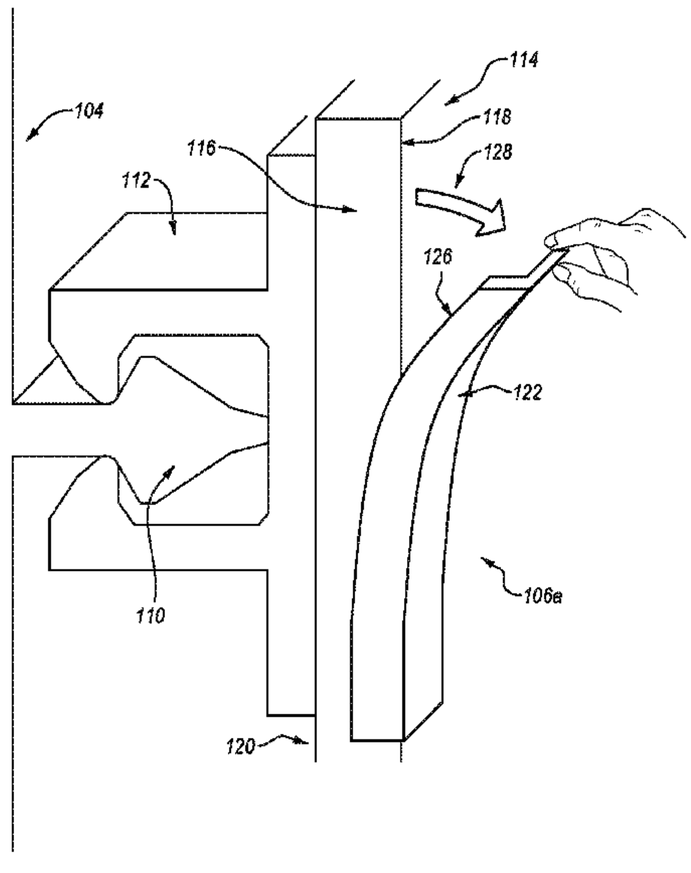
(57) **ABSTRACT**

A method for installing a tile to a wall includes applying a padded trim material to a front surface of the tile. With the trim material on the front surface of the tile, a force is applied to the trim material so that the tile is connected to the wall. Once the tile is connected to the wall, the trim material is removed from the tile.

16 Claims, 9 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

3,998,014	A *	12/1976	Bartels	E04B 9/0435 52/100
4,092,813	A *	6/1978	Eggert	B60J 10/16 296/207
4,443,508	A	4/1984	Mehl	
4,763,454	A *	8/1988	Brockhaus	B60J 1/1815 160/354
4,775,570	A	10/1988	Ohlenforst	
5,020,288	A *	6/1991	Swensen	E04G 21/30 156/99
5,079,880	A *	1/1992	Reid	A47K 3/008 52/288.1
5,107,643	A *	4/1992	Swensen	E04G 21/30 156/106
6,279,983	B1 *	8/2001	Biondo	B60J 10/70 296/93
6,513,861	B2 *	2/2003	DiGrazia	B60J 11/08 296/153
6,826,877	B1 *	12/2004	Stradel	E06B 1/34 49/462
7,188,885	B2 *	3/2007	Schlater	B60J 10/18 296/93
7,604,280	B2 *	10/2009	Katcherian	B60J 1/005 296/96.21
7,651,150	B2 *	1/2010	Schlater	B60J 10/18 296/96.21
8,050,022	B2 *	11/2011	McIntyre	G06F 1/1609 24/489
2003/0056449	A1 *	3/2003	Geiger	B60J 1/002 52/204.53
2004/0022997	A1 *	2/2004	Dujardin	B60R 13/043 428/99
2004/0055242	A1 *	3/2004	Iwakawa	B44C 5/04 52/578
2005/0211396	A1 *	9/2005	Doiron	E06B 9/02 160/222
2006/0022487	A1 *	2/2006	Schlater	B60J 10/18 296/146.15
2007/0182206	A1 *	8/2007	Schlater	B60J 10/18 296/146.15
2009/0288350	A1 *	11/2009	Fortman	B05B 12/24 52/105
2010/0102197	A1 *	4/2010	McIntyre	G06F 1/1609 248/687
2015/0147531	A1 *	5/2015	Anspach	E04F 15/0215 428/172
2016/0145934	A1 *	5/2016	Trott	E06B 5/11 52/203
2018/0309083	A1 *	10/2018	Hayashi	F21S 2/00

OTHER PUBLICATIONS

Non-Final Office Action for Singapore Patent Application No. 11201710364U dated Dec. 17, 2019.

* cited by examiner

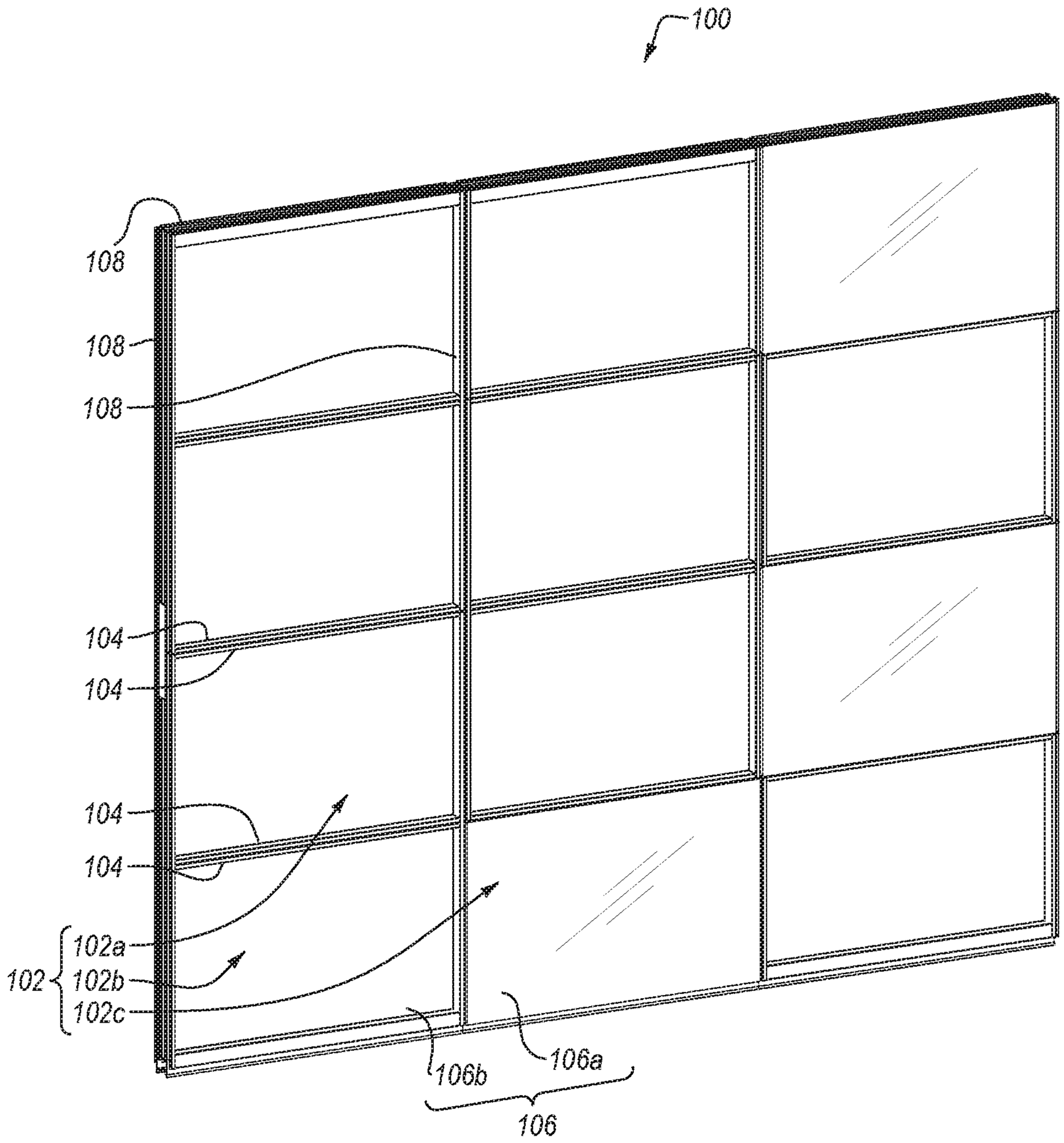

100
108
108
108
104
104
104
104
102
102a
102b
102c
106b
106a
106

FIG. 1

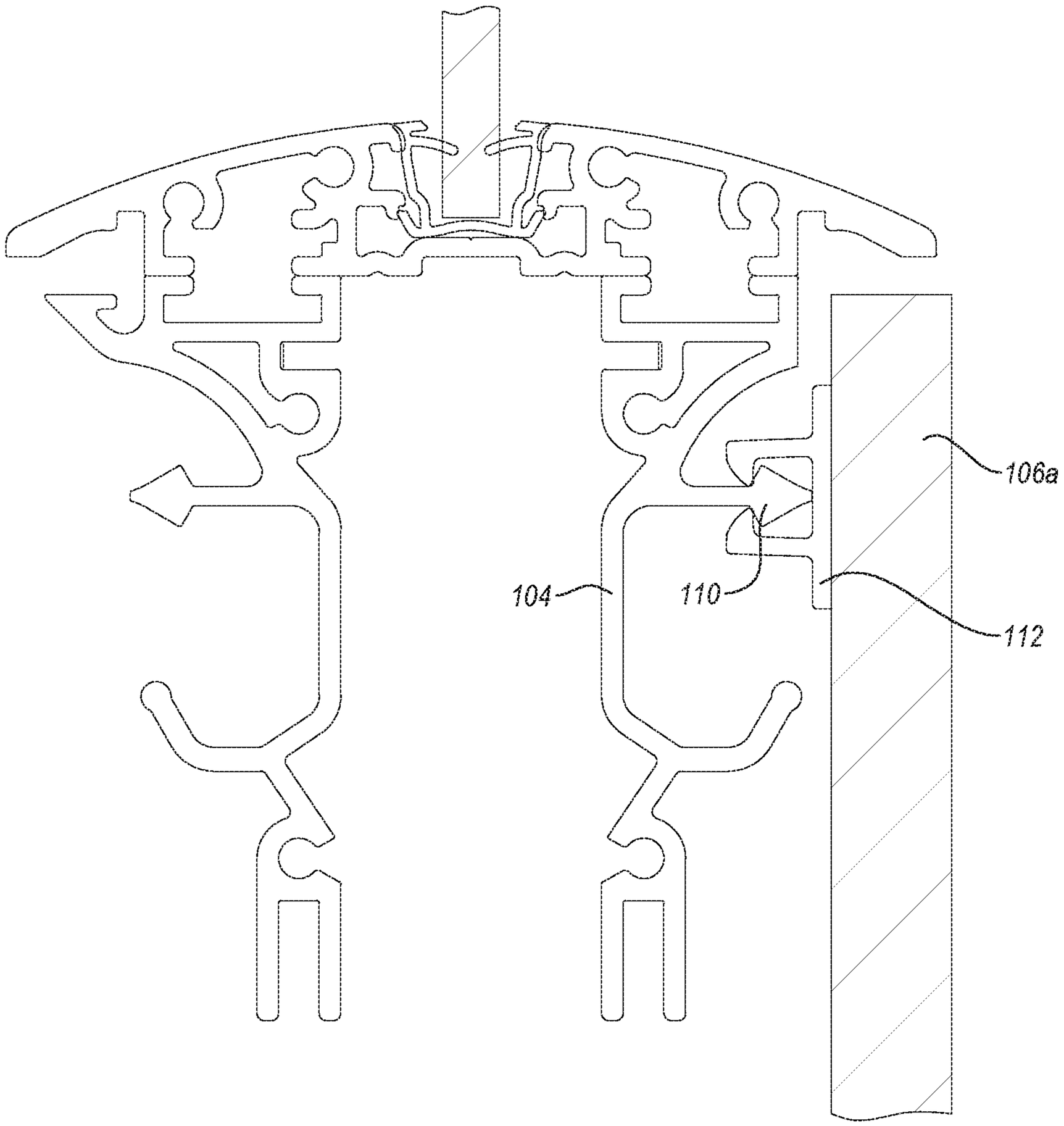


FIG. 2

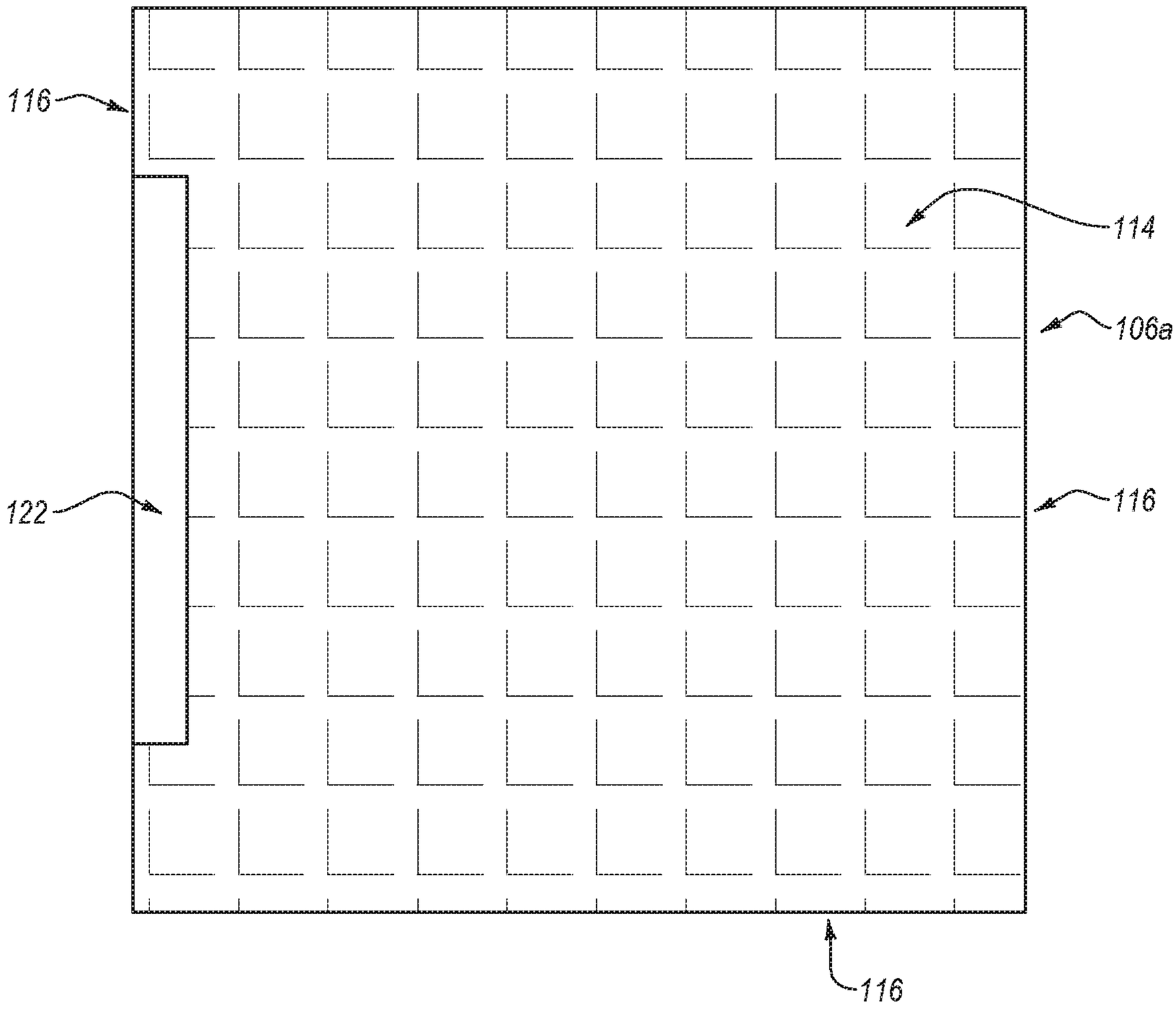


FIG. 3

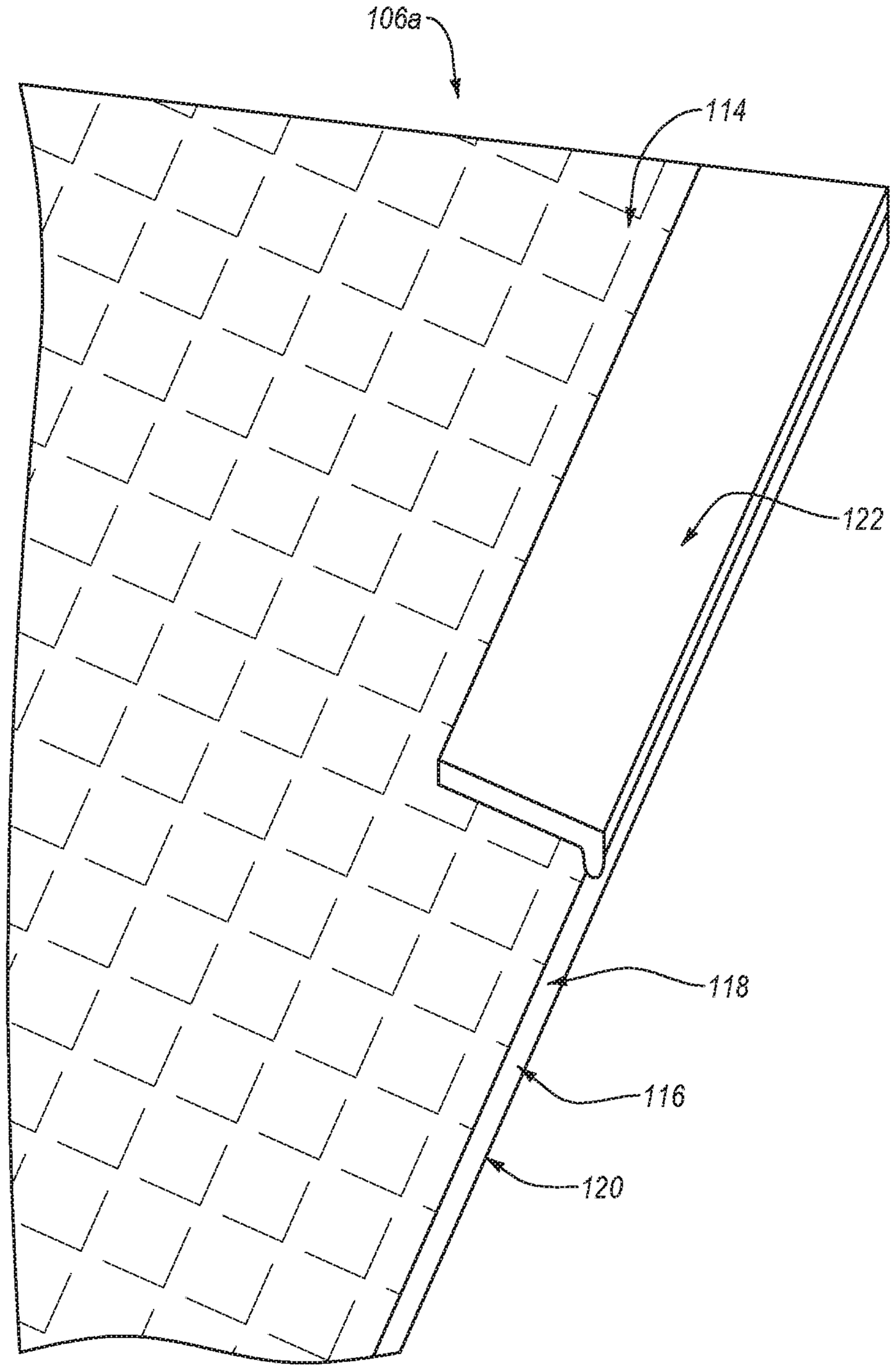


FIG. 4

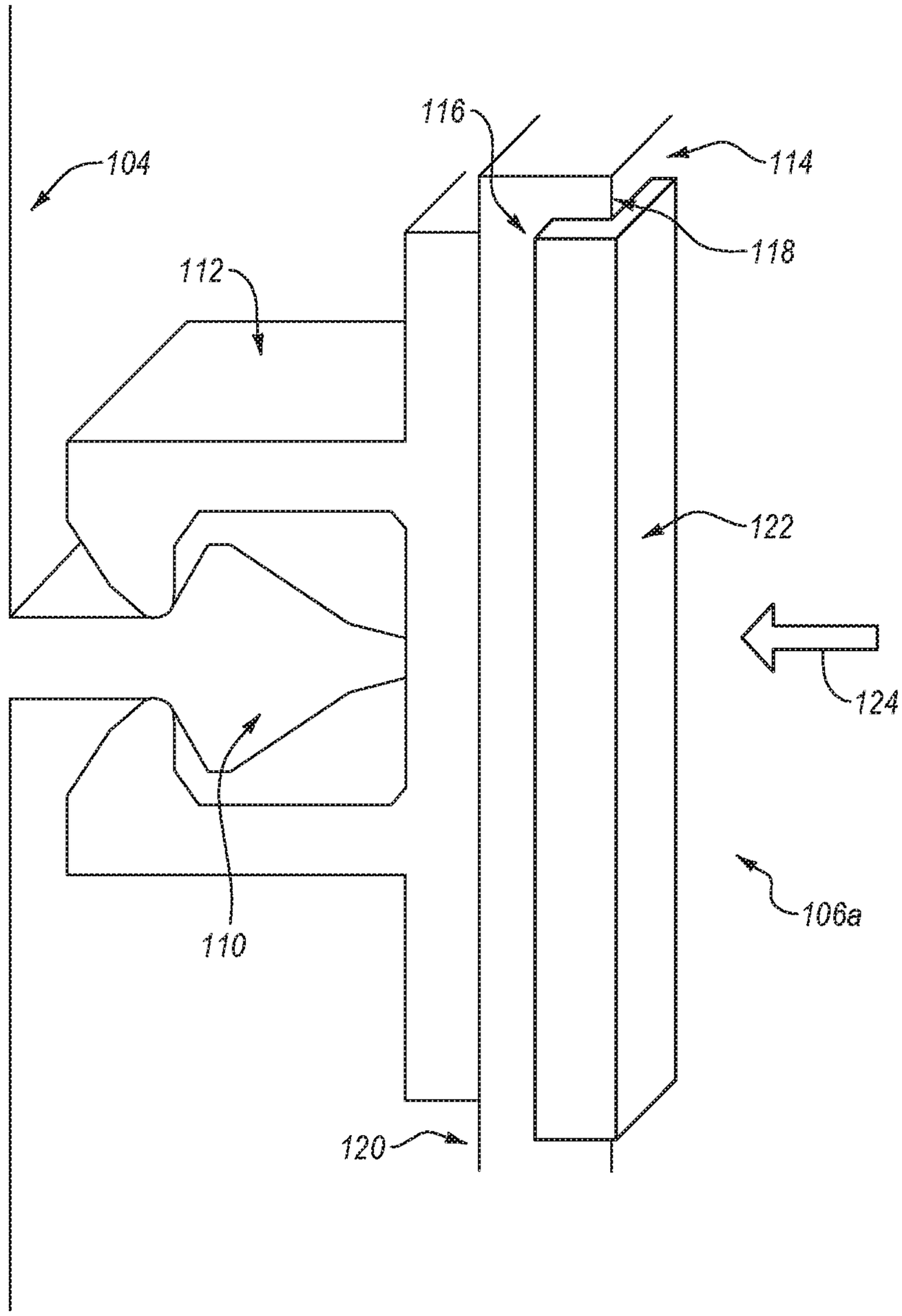


FIG. 5

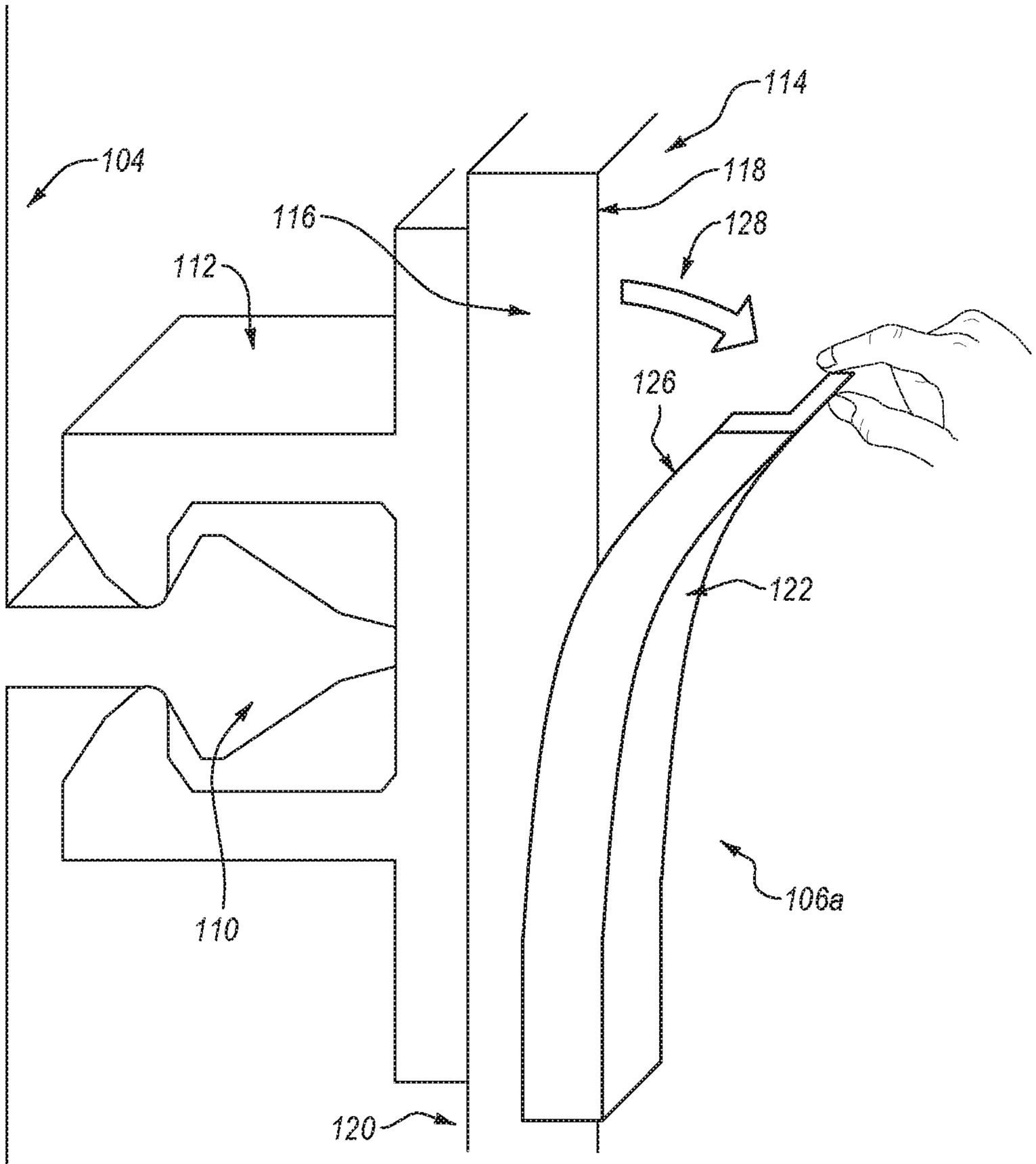


FIG. 6

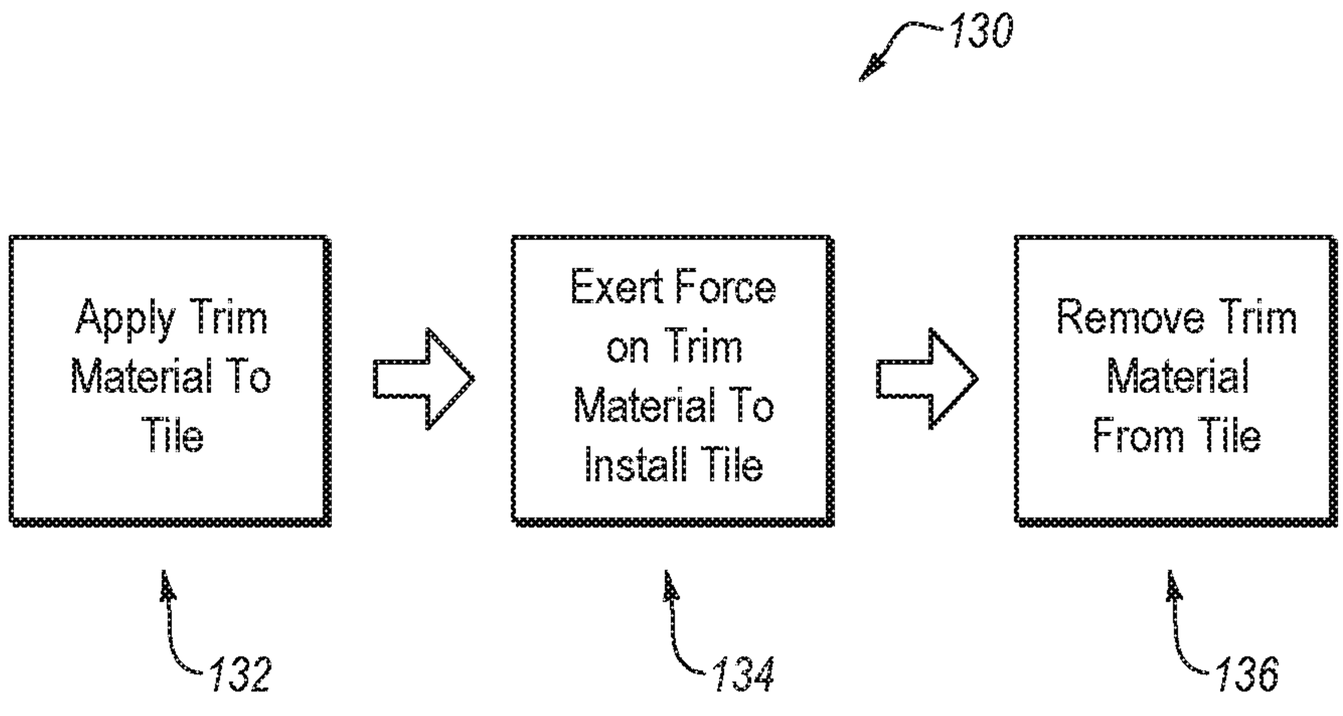

130
Apply Trim Material To Tile
Exert Force on Trim Material To Install Tile
Remove Trim Material From Tile
132
134
136

FIG. 7

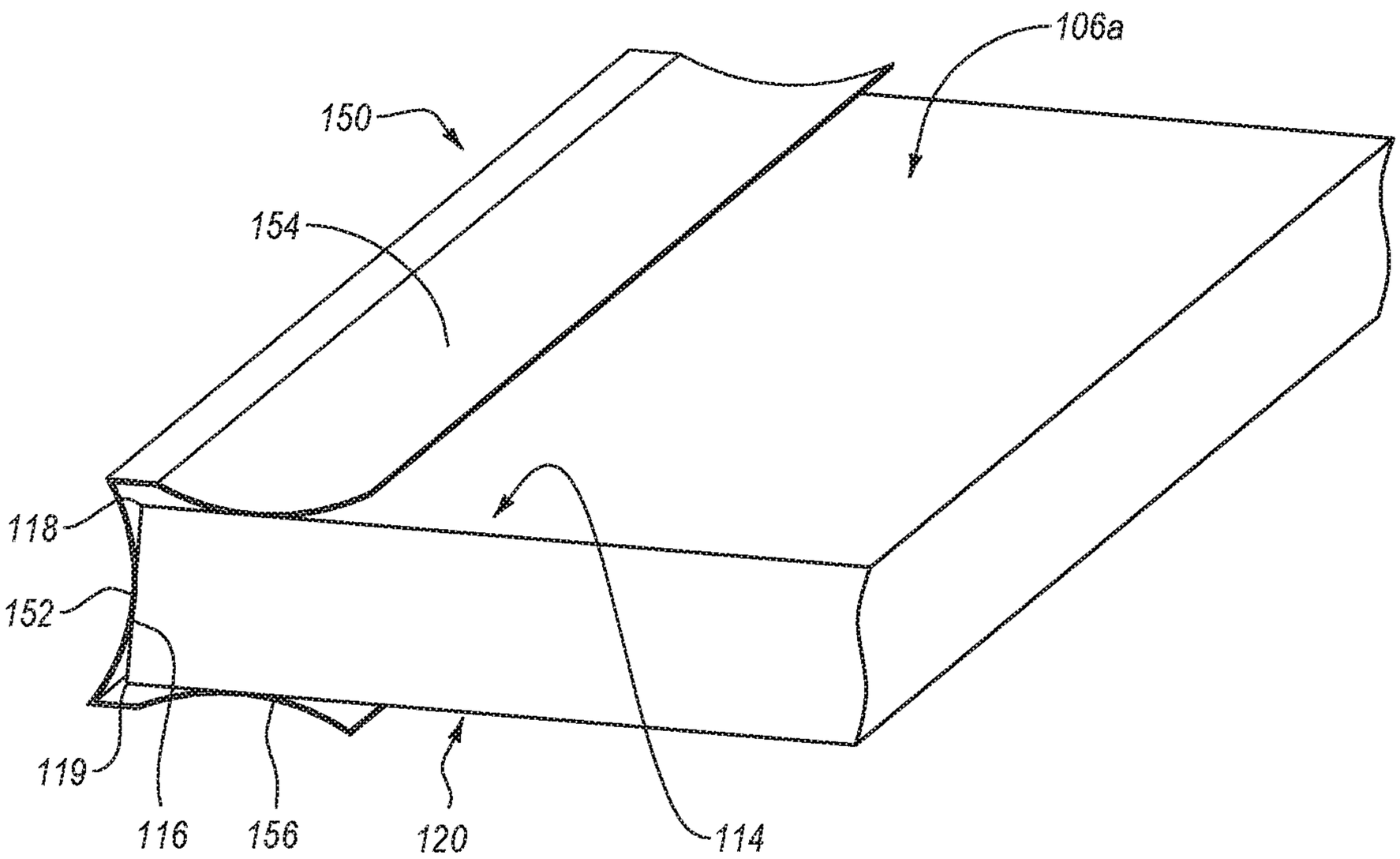

106a
150
154
118
152
119
116
156
120
114

FIG. 8

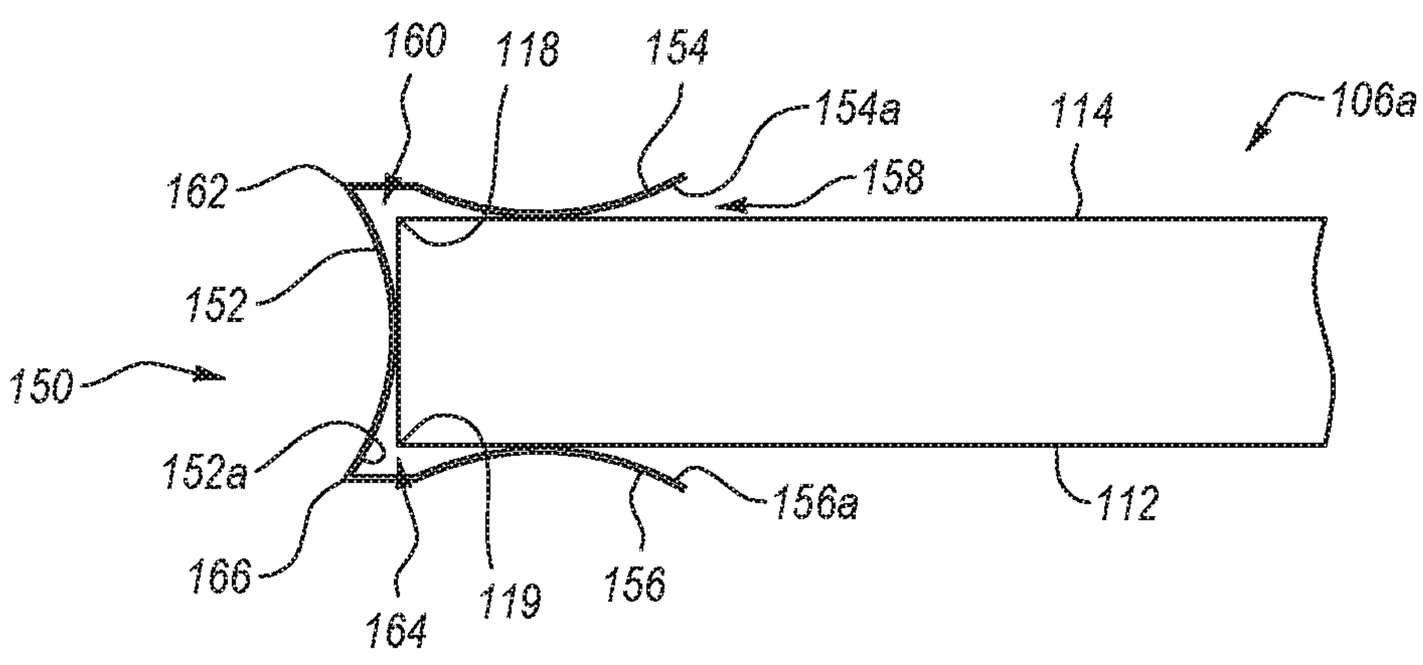

160
118
154
154a
114
106a
162
158
152
150
152a
156a
112
166
164
119
156

FIG. 9

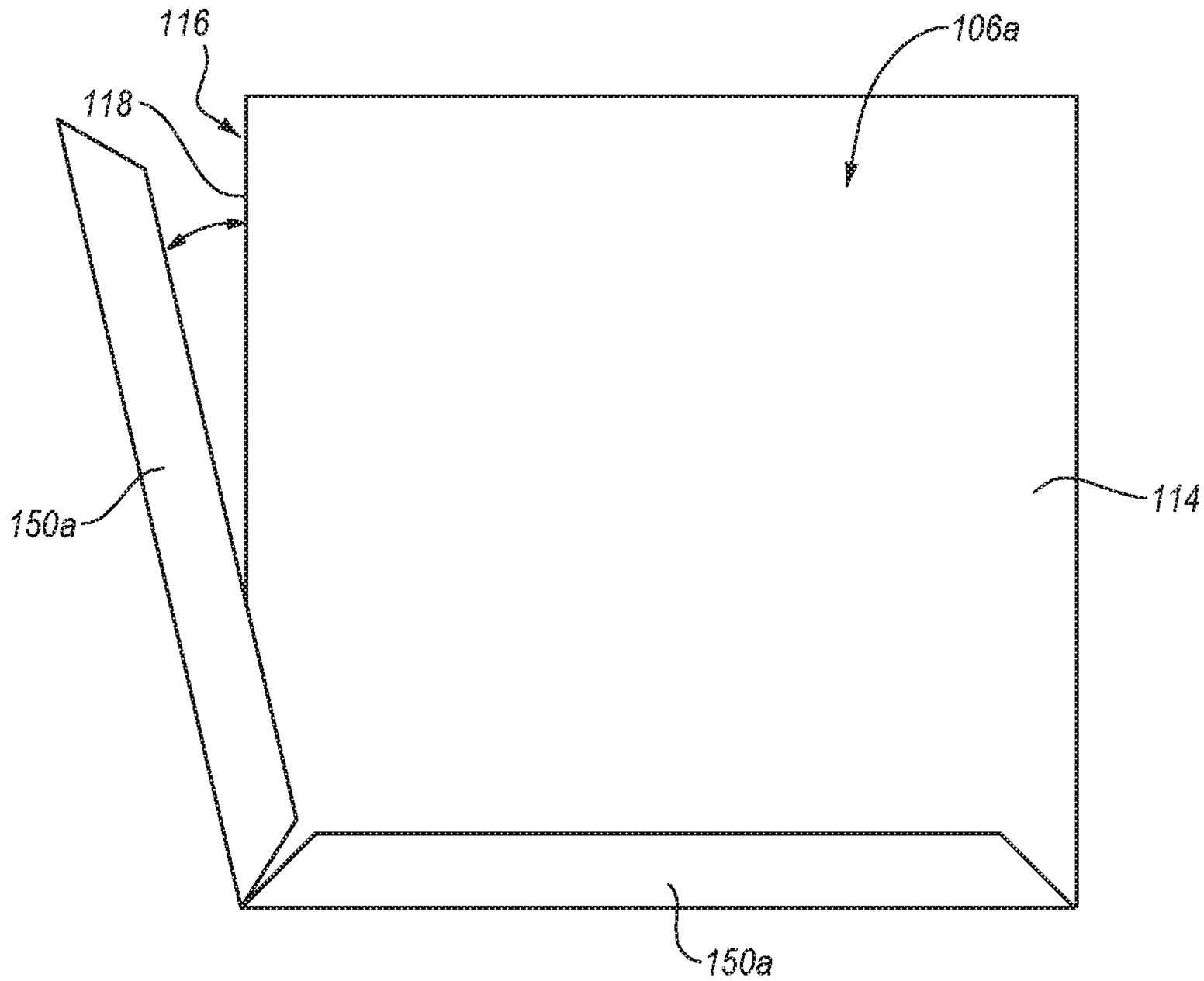


FIG. 10

METHOD FOR INSTALLING TILES IN A WALL SYSTEM

CROSS-REFERENCE TO RELATED APPLICATIONS

The present invention is a 35 U.S.C. § 371 U.S. National Stage of PCT Application No. PCT/US16/31657, filed on May 10, 2016, the entire content of which is incorporated herein by reference.

BACKGROUND

1. Technical Field

This disclosure relates generally to wall systems. More specifically, the present disclosure relates to apparatus, systems, methods, and devices for protecting glass or resin tiles, panels, windows, or other structures from damage while configuring and/or attaching the structures into walls.

2. Background and Relevant Art

Tile, panels, and other structures made of glass or other shatterable materials can provide an aesthetically pleasing look or provide useful functionality when applied as a surface or panel to a wall. However, there can also be a number of drawbacks to the use of such materials. For instance, glass, as well as ceramics, some resins, and other shatterable materials, are fragile and subject to breakage. Because of the properties of glass, building codes can be more stringent when glass is applied as a finish material.

In addition, connecting glass or other shatterable materials to a wall and/or integrating such tiles or panels into a wall can present further challenges. In such applications, which can require repeated connection, removal, and reconnection, the use of glass (and other shatterable materials) can be challenging, often resulting in damage to the tiles or panel, such as cracking, chipping, and shattering.

Accordingly, there is a need for installation methods and apparatus for wall systems having tiles, panels, or other structures made from glass or other shatterable materials that limit or avoid these disadvantages.

BRIEF SUMMARY

Implementations of the present disclosure solve one or more of the foregoing or other problems in the art with systems, methods, and apparatus for protecting tiles, windows, panels, passthroughs, or other such objects made from glass or other shatterable materials (e.g., ceramics, resins, etc.) while being attached or otherwise configured into and/or onto wall structures.

Certain implementations of this disclosure include a method of installing a tile or panel in a wall by first applying a trim material to one or more front surfaces and/or edges of the tile or panel. In some embodiments, the trim material is applied to a front surface of the tile or panel opposite to a connector disposed on a rear surface of the tile or panel. In some embodiments, the trim material is applied to the tile or panel where the front surface and a side surface of the tile or panel meet. The trim material may extend widthwise over the front edge of the tile or panel so that it extends partway over the front surface of the tile or panel and partway over one or more side surfaces of the tile or panel. The trim material may extend lengthwise along one or more front edges of the tile or panel.

In certain implementations, the trim material may be softer than the tile or panel material. Additionally, or alternatively, the trim material may be or include an easy release tape on the side of the trim material that adheres to the tile or panel when the trim material is applied to the tile or panel. This easy release tape remains on the trim material after the trim material has been removed from the tile or panel after the tile or panel has been installed.

In certain implementations, the tile or panel may be installed for use in a wall by exerting force on the trim material. Exerting a force on the trim material, rather than the tile or panel itself, protects the tile or panel from chipping, cracking, or shattering.

Additional features and advantages of exemplary implementations of the present disclosure will be set forth in the description which follows, and in part will be obvious from the description, or may be learned by the practice of such exemplary implementations. The features and advantages of such implementations may be realized and obtained by means of the instruments and combinations particularly pointed out in the appended claims. These and other features will become more fully apparent from the following description and appended claims, or may be learned by the practice of such exemplary implementations as set forth hereinafter.

BRIEF DESCRIPTION OF THE DRAWINGS

In order to describe the manner in which the above-recited and other advantages and features of the disclosure can be obtained, a more particular description of the disclosure briefly described above will be rendered by reference to specific embodiments thereof which are illustrated in the appended drawings. Understanding that these drawings depict only typical embodiments of the disclosure and are not therefore to be considered to be limiting of its scope, the disclosure will be described and explained with additional specificity and detail through the use of the accompanying drawings in which:

FIG. **1** illustrates a perspective view of a wall system formed at least partially using the methods of the present disclosure;

FIG. **2** illustrates a partial cross-sectional view of the wall system of FIG. **1**;

FIG. **3** illustrates a front view of a tile with a trim material applied on a front edge of the tile;

FIG. **4** illustrates a perspective view of the tile of FIG. **3** with the trim material applied on the front edge of the tile;

FIG. **5** illustrates a tile with a trim material applied and the tile installed in a wall;

FIG. **6** illustrates the removal of the trim material from the tile;

FIG. **7** is a flowchart of a method described in the present disclosure;

FIG. **8** illustrates a perspective view of a tile with a piece of trim applied to a side of a tile;

FIG. **9** illustrates an end view of the trim and tile of FIG. **8**; and

FIG. **10** illustrates a piece of trim material being applied to or removed from a tile.

DETAILED DESCRIPTION

Implementations of the present disclosure are directed to systems, methods, and apparatus for protecting tiles, windows, panels, passthroughs, or other such objects made from

glass or other shatterable materials (e.g., ceramics, resins, etc.) while being attached or otherwise configured into and/or onto wall structures.

FIG. **1** illustrates a perspective view of an exemplary wall system formed according to one or more implementations of the present disclosure. More specifically, FIG. **1** illustrates a wall system **100** that includes a plurality of wall modules **102** (e.g., wall modules **102***a*, **102***b*, **102***c*) arranged and/or coordinated in relation one to another. As illustrated in FIG. **1**, each module **102** can be connected and/or attached to another module **102** via one or more connection components **104**, **108**.

Modules **102** can also include and/or be clad with one or more tiles **106**. Tiles **106** can comprise and/or be made of wood, plastic, metal, fabric, textile, fiber, fiberglass, plaster, drywall, glass, resin, and/or other suitable material. In addition, a plurality of different types of tiles can be arranged in a desired fashion to achieve a desired aesthetic or other purpose. For instance, wall system **100** can include a plurality of modules **102** having a combination of glass and wall tiles **106** arranged such that a consistent, random, alternating, and/or patterned (regular or irregular) configuration is displayed on a viewing surface or face thereof.

As illustrated in FIG. **1**, for instance, the modules **102** of wall system **100** have been configured such that various arrangements of adjacent glass tiles **106***a* and wall tiles **106***b* can be observed. Glass tiles **106***a* and/or wall tiles **106***b* can be translucent, transparent, or opaque in various implementations. Accordingly, a variety of functional and aesthetic combinations can be available by arranging a plurality of modules **102** in various relationships.

As discussed in further detail below, in some implementations, a tile **106** can be mounted, secured, and/or attached to an outer edge or component of a module **102** and/or connection component(s) **104**, **108** thereof. In some implementations, tiles **106** can be mounted, secured, and/or attached to both or opposing outer edges or components of a module **102** and/or connection component(s) **104**, **108** thereof. For instance, tiles **106** can be mounted, secured, and/or attached to both or opposing outer terminal edges of opposing connection components **104**. Similarly, tiles **106** can be mounted, secured, and/or attached to both or opposing outer sides of a single connection component **104**.

In one or more implementations, wall system **100**, or a module **102** or connection components **104** thereof configured to receive a glass tile **106***a* includes one or more tile attachment elements and the glass tile **106***a* includes one or more corresponding tile attachment elements. For instance, FIG. **2** illustrates a partial cross-sectional view of the wall system **100**. As illustrated in FIG. **2**, the connection component **104** includes a tile attachment element **110** and the glass tile **106***a* includes a tile attachment element **112**. According to the illustrated embodiment, the tile attachment element **110** includes a barb or an arrow-shaped head and the tile attachment element **112** include one or more flexible arms with undercutting edges that clip or snap about the head of the tile attachment element **110** to secure them together. In particular, the flexible arms of the tile attachment element **112** can surround at least a portion of the head of the tile attachment element **110**. It will be appreciated that the tile attachment elements **110**, **112** can be reversed, such that element **110** is associated with the glass tile **106***a* and the element **112** is associated with the connection component **104**. It will also be appreciated that other types of connection elements can be used to connect the glass tile **106***a* to the connection component **104**.

As noted, implementations and embodiments of the present disclosure include panels or tiles formed from glass and/or other shatterable materials (e.g., ceramics, plasters, resins, etc.). To assist with installing (e.g., connecting, mounting) the fragile tiles to a wall structure or component thereof (e.g., connection components **104**, **108**), a trim material may be employed to prevent damage to the tile during installation. The trim material is preferrably softer and more flexible than the tile material. Trim materials may include foam, rubber, plastic, or any other material, or a combination of such materials. Additionally, or alternatively, a side of the trim material that makes contact with the tile may include a coat of easy release tape, epoxy, or other coating or material suitable for adherence of the trim material to the tile. The tape, epoxy, or other coating may remain on the trim material when the trim material is removed from the tile or panel.

FIGS. **3** and **4** illustrate front and perspective views of an example tile **106***a* formed of glass, resin, or other shatterable material. As illustrated in the Figures, the tile **106***a* includes a front surface **114**, side surfaces **116**, front edge **118** (where front surface **114** and side surfaces **116** meet), and a rear surface **120**. Prior to installation of the tile **106***a*, trim material **122** can be applied to the tile **106***a*. In some implementations, the trim material **122** is applied to the tile **106***a* upon completion of the manufacturing of the tile **106***a* (e.g., prior to shipping or transportation of the tile **106***a* to an installation site). In other implementations, the trim material is applied at the installation site prior to installation of the tile **106***a* to the wall system.

As illustrated in the Figures, at least a portion of the trim material **122** is applied to the front surface **114** of the tile **106***a*. For instance, the trim material **122** can be applied to the front surface **114** adjacent to one or more of the front edges **118**. Additionally, in some implementations the trim material **122** is applied to the tile **106***a* so that a portion of the trim material **122** is applied to the front surface **114** and a portion is applied to one or more of the side surfaces **116** so as to cover or to extend widthwise over at least a portion of one or more of the front edges **118**.

Although FIGS. **3** and **4** only show the trim material **122** applied to a portion of the front surface **114**, side surface **116**, and a front edge **118**, it will be appreciated that this is merely exemplary. In other implementations, the trim material **122** may be applied to the front surface **114** adjacent to one or more of the front edges **118**. Similarly, the trim material **122** may be applied to one or more of the front edges **118** and/or one or more of the side surfaces **116**. The trim material **122** may either be pre-formed to fit the tile **106***a* or it may be cut and/or manipulated to apply to the tile **106***a* as desired. For instance, the trim material **122** may be applied to the front surface **114** and selectively folded over one or more of the front edges **118** and onto one or more of the side surfaces **116**.

FIG. **5** illustrates the tile **106***a* being attached to a connection component **104** of a wall system. As can be seen, the tile **106***a* has the trim material **122** applied to at least the front surface **114** thereof. To attach the tile **106***a* to the connection component **104** (and thus the wall system), a force (identified in FIG. **5** with reference number **124**) is applied to the front surface **114** of the tile **106***a* in order to connect the tile attachment element **112** (on the rear surface **120** of the tile **106***a*) to the tile attachment element **110** on the connection component **104**. To prevent the applied force from damaging the tile **106***a*, the force is applied to the trim material **122**. As noted above, the trim material **122** may be softer and/or more flexible than the tile **106***a* material so that

it provides cushioning to the tile **106***a* when the force is being exerted to secure the tile **106***a* to the wall system.

Although the trim material **122** is shown and described as being applied to the front surface **114** of the tile **106***a* near the front edge(s) **118**, it will be understood that the trim material **122** may be applied to various areas on the front surface **114**. For instance, the trim material **122** may be applied to the front surface **114** at a desired distance from the front edge(s) **118**, at or near the center of the front surface **114**, or at other locations on the front surface **114**. For instance, in some embodiments, the trim material **122** is applied to the portion(s) of the front surface **122** that is/are opposite to the tile attachment element(s) **112**.

Once the tile **106***a* is connected to the wall system, the trim material **122** may be removed from the tile **106***a*. FIG. **6** illustrates an example of the removal of the trim material **122** from the tile **106***a*. One side **126** of the trim material **122** (i.e., the side of the trim material **122** that makes contact with the tile **106***a*) is coated with or includes an easy release tape, epoxy, or other coating or material suitable to adhere the trim material **122** to the tile **106***a*. The trim material **122** can be removed from the tile **106***a* by peeling the trim material **122** off of the tile **106***a* as shown in FIG. **6**. The arrow **128** in FIG. **6** indicates an example motion for removing the trim material **122** from the tile **106***a*. As the trim material **122** is removed from the tile **106***a*, the easy release tape, epoxy, or other coating or material remains on the trim material **122** such that it is removed with the trim material **122**.

FIG. **7** is a flowchart of an example implementation of a method **130** according to the present disclosure. In describing the example method, reference will be made to the elements described elsewhere herein. It will be understood, however, that the method may be practiced with other elements.

According to method **130**, a trim material is applied to a tile (**132**). For instance, as illustrated in FIG. **3-5**, the trim material **122** may be applied to at least a portion of the front surface **114** of a tile **106***a*. In some embodiments, the trim material **122** is applied to the front surface **114** directly or nearly directly opposite to a tile attachment element **112** on the rear surface **120** of the tile **106***a*. In some embodiments, the trim material **122** is applied adjacent to or over one or more front edges **118** and onto one or more side surfaces **116** of the tile **106***a*. Applying the trim material **122** to the tile **106***a* can include adhering one surface **128** of the trim material **122** to the one or more surfaces of the tile **106***a*.

The method **130** also includes exerting a force on the trim material to install the tile in/to a wall system (**134**). For instance, as illustrated in FIG. **5**, a force **124** can be applied to the trim material **122** in a direction that is generally normal to the front surface **114** of the tile **106***a* so that the tile **106***a* is pressed towards the wall system. As described herein, the trim material **122** can protect the tile **106***a* so that the applied force does not damage the tile **106***a*. The applied force can cause the tile attachment element(s) **112** on the rear surface **120** of the tile **106***a* to connect or engage the tile attachment element(s) **110** on the wall system (or connection component **104** thereof) in order to connect the tile **106***a* to the wall system.

The method **130** also include removing the trim material from the tile (**136**). More specifically, after the tile **106***a* is connected to the wall system, the trim material **122** (including the easy release tape, epoxy, or other coating or adhering material) is removed from the tile **106***a*. This can be done by peeling the trim material **122** away from the tile **106***a*.

Attention is now directed to FIGS. **8-11**, which illustrate another embodiment of a trim that can be used to protect a tile. More specifically, FIGS. **8** and **9** illustrate a perspective and an end view of a piece of trim **150** applied to a side of a tile **106***a*. According to the illustrated embodiment, the trim **150** covers the side surface **116**, the front edge **118**, a rear edge **119**, and portions of the front and rear surfaces **114**, **120** of the tile **106***a*. The trim **150** may be formed of a material (e.g., plastic, metal, etc.) that is sufficiently rigid and durable to protect the sides and edges of the tile **106***a*, such as during transportation of the tile **106***a*. As described in greater detail below, the trim **150** may also be shaped or otherwise configured to protect the sides and/or edges of the tile **106***a* while allowing for the trim **150** to be readily applied to or removed from the tile **106**.

As can be seen in FIGS. **8** and **9**, the trim **150** includes a spine **152** and legs **154**, **156** extending therefrom. In the illustrated embodiment, the spine **152** is designed to be positioned adjacent to and extend along the side surface **116** of the tile **106***a*. The legs **154**, **156** extend from opposing sides of the spine **152** so that the legs **154**, **156** can extend over portions of the front and rear surfaces of the tile **106***a*, as illustrated in FIGS. **8** and **9**. The legs **154**, **156** are sufficiently spaced apart to allow the tile **106***a* to be inserted therebetween. However, the legs **154**, **156** are also spaced close enough together to create a friction fit on the tile **106***a*.

According to the illustrated embodiment, the spine **152** and legs **154**, **156** include curved interior surfaces **152***a*, **154***a*, **156***a*. The curved interior surfaces **152***a*, **154***a*, **156***a* can perform various functions and provide various benefits for the trim **150**. For instance, the curved interior surfaces **154***a*, **156***a* on the legs **154**, **156** create a flared opening **158**, as best seen in FIG. **9**. The flared opening **158** facilitates smooth insertion of the side of the tile **106***a* into the trim **106***a*. More specifically, the flared internal surfaces **154***a*, **156***a* act as guides to direct the side of the tile **106***a* into the trim **150**. The guiding function of the curved interior surfaces **154***a*, **156***a* can also help protect the tile **106***a*, and particularly the front and rear edges **118**, **119** thereof, as the tile **106***a* is being inserted into the trim **150**. The curved interior surfaces **152***a*, **154***a*, **156***a* can also distribute any forces applied from the trim **150** to the tile **106***a*.

The curved interior surfaces **152***a*, **154***a*, **156***a* can also create gaps or buffer areas between portions of the trim **150** and portions of the tile **106***a* to protect the portions of the tile **106***a*. For instance, the curved interior surfaces **152***a*, **154***a* may create a gap or buffer area **160** on the interior of the corner **162** formed by the spine **152** and the leg **154**. Similarly, the curved interior surfaces **152***a*, **156***a* may create a gap or buffer area **164** on the interior of the corner **166** formed by the spine **152** and the leg **156**. As a result of the gaps **160**, **164**, the corners **162**, **166** may be separated or spaced apart from the front and rear edges **118**, **119** of the tile **106***a*. If external forces are applied to the trim **150**, the gaps **160**, **164** can provide a buffer to limit or prevent the force from being transferred to the front and rear edges **118**, **119** of the tile **106**, thereby protecting the tile **106***a* from external forces.

In addition, the curves surfaces **152***a*, **154***a*, **156***a* can facilitate flexing of the trim **150**. The ability of the trim **150** to flex can also help prevent damage to the tile **106***a*. For instance, if an external force is applied to the trim **150**, the curved surfaces **152***a*, **154***a*, **156***a* can allow the trim **150** to flex and move relative to the tile **106***a*. By way of example, if an external force is applied to the spine **152**, the curved surface **152***a* may flex and absorb the energy of the force

without damaging the front or rear edges **118**, **119** of the tile **106***a* (due to the gaps **160**, **164**).

FIG. **10** illustrates two pieces of trim **150***a* and a tile **106***a*. Except as described below, the pieces of trim **150***a* can be similar or identical to the trim **150** described above. Similarly, the process described below for applying or removing the trim **150***a* can be used to apply or remove trim **150**.

In the illustrated embodiment, one of the pieces of trim **150***a* has been applied to one side of the tile, while the other piece of trim **150***a* is being applied to or removed from the tile **106***a*. To apply a piece of trim **150***a* to the tile **106***a*, a side (i.e., side surface **116**, front and rear edges **118**, **119**) of the tile **106***a* are inserted into an opening (see flared opening **158** in FIG. **9**) in the trim **150***a* between opposing legs (see legs **154**, **156** in FIG. **9**) of the trim **150***a*. As illustrated in FIG. **10**, a portion of the side of the tile **106***a* can be inserted into the trim **150***a* and then the trim **150***a* can be angularly rotated to apply the rest of the trim **150***a* to the side of the tile **106***a*. Alternatively, the trim **150***a* can be applied laterally such that the trim **150***a* is applied to the entire length of the side of the tile **106***a* at the same time. In other embodiments, the tile **106***a* can be slid into an end of the trim **150***a*. Removing the trim **150***a* from the tile **106***a* can be accomplished by reversing the application process.

Unlike trim **122**, which remains on the tile **106***a* during installation of the tile **106***a* on a wall, trims **150**, **150***a* can be removed from the tile **106***a* prior to installation of the tile **106**. Thus, for instance, after the tile **106***a* has been manufactured, a trim **150**, **150***a* may be applied to one or more sides of the tile **106***a*. The trim **150**, **150***a* may stay on the tile **106***a*, during storage, transportation, and the like of the tile **106***a*. Once the tile **106***a* is at the desired location for installation, the trim **150**, **150***a* can be removed and the tile **106***a* can be installed on a wall.

In the illustrated embodiment, the pieces of trim **150***a* have mitered ends. In some embodiments, the mitered ends on adjacent pieces of trim **150***a* can have corresponding angles. For instance, in the illustrated embodiment, the pieces of trim **150***a* have ends that have been mitered to 45 degree angles. It will be appreciated, however, that the trim may have square ends rather than mitered ends. For instance, the trim **150** illustrated in FIG. **8** has a square end.

The present invention may be embodied in other specific forms without departing from its spirit or essential characteristics. The described embodiments are to be considered in all respects only as illustrative and not restrictive. The scope of the invention is, therefore, indicated by the appended claims rather than by the foregoing description. All changes that come within the meaning and range of equivalency of the claims are to be embraced within their scope.

We claim:

1. A method of installing a tile for use in a wall, the method comprising:

applying a trim material to the tile prior to installation of the tile on the wall, wherein applying the trim material comprises applying at least a portion of the trim material on at least a portion of a front surface of the tile and at least a portion of the trim material on at least a portion of one or more side surfaces of the tile, wherein the trim material extends over a front edge of the tile where the front surface and the side surface of the tile meet;

securing the tile to the wall, wherein securing the tile to the wall comprises exerting a force on the trim material; and

removing the trim material from the tile after securing the tile to the wall, wherein all trim material is removed and the tile remains secured to the wall.

2. The method of claim **1**, wherein applying the trim material comprises applying the trim material so that it extends lengthwise along the front edge of the tile.

3. The method of claim **1**, wherein the trim material is softer than the tile material.

4. The method of claim **1**, wherein the trim material comprises an easy release tape on a side thereof that makes contact with the tile, thereby enabling the trim material to be secured to the tile.

5. The method of claim **4**, wherein the easy release tape remains on the trim material when the trim material is removed from the tile.

6. The method of claim **1**, wherein applying the trim material comprises applying at least a portion of the trim material on at least a portion of a front surface of the tile directly opposite to a tile attachment element on a rear surface of the tile.

7. A method of installing a tile for use in a wall, the method comprising:

applying a padded trim material to at least a front surface and a side surface of the tile before installing the tile on the wall, wherein the padded trim material extends partway over the front surface of the tile, the side surface of the tile, and widthwise over a front edge of the tile where the front surface and side surface of the tile meet; and

removing the padded trim material from the front surface, the side surface, and the front edge of the tile after installing the tile, wherein all padded trim material is removed and the tile remains installed on the wall.

8. The method of claim **7**, wherein applying the padded trim material comprises applying a padded trim material that is softer than the tile material.

9. The method of claim **7**, wherein the padded trim material comprises an easy release tape on a one side thereof, the easy release tape making contact with the tile when the padded material is applied to the tile, thereby enabling the padded material to be secured to the tile.

10. The method of claim **9**, wherein removing of the padded material from the tile removes the easy release tape from the tile.

11. The method of claim **7**, wherein applying the padded trim material to the front surface of the tile comprises applying the padded trim material opposite to a tile attachment member disposed on a rear surface of the tile.

12. The method of claim **7**, further comprising securing the tile to the wall.

13. The method of claim **12**, wherein securing the tile to the wall comprises exerting a force on the trim material in a direction generally normal to the front surface of the tile.

14. A method of installing a tile for use in wall, the method comprising:

providing a tile having a front surface, an opposing rear surface, and one or more tile attachment elements disposed on the rear surface, the one or more tile attachment elements being configured to interact with one or more wall attachment elements on the wall to secure the tile to the wall;

applying a padded trim material to at least the front surface of the tile so that the padded trim material is disposed directly opposite the one or more tile attachment elements, wherein applying the padded trim material is done prior to installation of the tile on the wall, wherein applying the padded trim material comprises

applying at least a portion of the padded trim material on at least a portion of the front surface of the tile and at least a portion of the padded trim material on at least a portion of one or more side surfaces of the tile, wherein the padded trim material extends over a front edge of the tile where the front surface and the side surface of the tile meet;

securing the tile to the wall by exerting a force on the tile by pushing on the padded trim material to cause the one or more tile attachment elements to interact with the one or more wall attachment elements; and

removing the padded trim material from the front surface of the tile after the tile is secured to the wall, wherein all padded trim material is removed and the tile remains secured to the wall.

15. The method of claim **14**, wherein applying the padded trim material comprises applying the padded trim material to one or more front edge or side surfaces of the tile.

16. The method of claim **14**, wherein removing the padded trim material comprises removing an easy release tape from the tile.

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